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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/042,762	02/22/2002	Qiong Li	US020053	2738

24737 7590 08/24/2006

PHILIPS INTELLECTUAL PROPERTY & STANDARDS  
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BRIARCLIFF MANOR, NY 10510

EXAMINER

NGUYEN, HANH N

ART UNIT	PAPER NUMBER
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2616

DATE MAILED: 08/24/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	<b>Application No.</b> 10/042,762	<b>Applicant(s)</b> LI ET AL.	
	<b>Examiner</b> Hanh Nguyen	<b>Art Unit</b> 2616	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

#### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) ☒ Responsive to communication(s) filed on Amendment filed on 6/30/06.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) ☒ Claim(s) 1-20 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 8-15 is/are allowed.
- 6) ☒ Claim(s) 1-7 and 16-20 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

## **DETAILED ACTION**

### ***Claim Objections***

Claims 8 are objected to because of the following informalities:

Even though claim 8 has been allowed, but step f of claim 8 claims “**their** respective channels” which raises indefinite meanings. The term “ their” should not be included in the claimed limitations. Is the “respective channels” subscribed by “ receivers downstream of the adaptive node” ?. If so, it is required that step f be amended appropriately.

### ***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-7 and 16-20 are rejected under 35 USC 103(a) as being unpatentable over Paul et al. ( US Pat. 6,148,005) in view of Bigham et al. ( Us Pat. 5,740,075).

In claims 1, 7 and 16, Paul et al. discloses a system for providing streaming fine granular scalability coded video data ( fig.1; layered video multicast transmission 100 for transmitting streams of encoded video data from a sender 110 to one or more receiver 122; see Abstract) comprising:

a server ( fig.1, sender 110) for sending fine granular scalability coded video data (transporting digitized and coded video frames from sender 110) into a data network ( over

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network 150) through a plurality of channels (fig.1; layered video substreams of 131 a, b, c); see col.3, lines 55 to col.4; line 8. A receiver (fig.1, receiver 122) having a first network analyzer (fig.1, rate controller 300) that monitors network congestion conditions of the data network at the receiver (see Abstract; lines 12-13 & col.6, lines 1-5; a device for monitoring congestion state of the network 150), and dynamically modifies subscriptions to a predetermined number of the plurality of the channels ( during network congestion, receiver 122 adaptive drops coded video layers or adds a coded video layer depend on performance of video players the receiver is receiving; see fig.3; col.8, lines 7-20 & col.6, lines 1-25) based on the perceived congestion conditions of the data network at the receiver ( depending on current network load; col.6, lines 1-5). Paul et al. further discloses transporting nodes 106 ( adaptive node; see abstracts, lines 8-13) transporting video substreams I, P, B over network 150. Paul et al. does not disclose an adaptive node (the transporting node 106) having a second network analyzer that accounts for the number of the channels subscribed to by the receiver. Bigham et al. discloses, in fig.1, an access control element ( adaptive node) in subnetwork 15<sub>2</sub> (see col.8, line 66 to col.9, line 5). In the access subnetwork 15<sub>2</sub>, an access controller 16<sub>2</sub> (a second network analyzer) reserves an enables access subnetwork resources for a particular user connection ( accounting for the number of channels subscribed by the receiver). See col.7, line 65 to col.8, line 10. Therefore, it would have been obvious to one ordinary skilled in the art to use the access controller 16<sub>2</sub> (a second network analyzer) in the transport node 106 of Paul et al. to recognize or account for the number of channel subscribed by the receivers. The motivation is to reserve channels for receivers in accordance with network load.

In claim 3, Paul et al. discloses the adaptive node comprising a plurality of adaptive nodes, at least one of the plurality of adaptive nodes is upstream of at least one other of the plurality of adaptive nodes ( see fig.4, designate receiver DRs 178, 188; col.4, lines 42-55).

In claims 4 and 19, Paul et al. discloses, in fig.4, col.4, lines 35 to col.5, lines 5, the second network analyzer (designate receiver DR 178) merges channel control signals received from other receivers ( receives NACK and retransmit request sent from receiver R) and forward the merged channel control signals ( NACK) to an upstream peer ( designate receiver DR 188 and sender S) in order to dynamically modify transmission of the subscribed channels to the receivers ( DR modifies transport layers to reduce latency).

In claim 5, Paul et al. discloses the upstream peer comprises the server ( sender 110 is a video server; col.3, lines 55-60).

In claim 6, Paul discloses the receiver is a plurality of receivers ( see fig.1, receiver 1 and receiver 3, each receives different video streams; see col.6, lines 1-7).

In claim 20, Paul et al. discloses the client ( nodes in network 150 and application layer 102) comprises at least a receiver ( receiver 1) and an adaptive node ( node in the network 150).

In claims 2, 17 and 18, Paul et al. discloses, in fig.4, designate receiver DR 178 ( an adaptive node) that caches received data and processes NACK from receiver R (adaptive node comprises a mass data store capable of buffering data; see col.4, lines 42-50).

### ***Response to Arguments***

Applicant's arguments with respect to claims 1-7 and 16-20 have been considered but are moot in view of the new ground(s) of rejection.

### ***Conclusion***

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Van Zon ( US Pat. 7,016,412 B1);

Van der Schaar et al. (US pat. 6,501,797 B1).

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Hanh Nguyen whose telephone number is 571 272 3092. The examiner can normally be reached on Monday-Friday from 8:30 to 4:30. The examiner can also be reached on alternate

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Ahmad Matar, can be reached on 571 272 7488. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Hanh Nguyen



**HANH NGUYEN**  
**PRIMARY EXAMINER**